

*A3
cancelled* *4/1
cont* said bearing assembly having an inner diameter and said bearing carrier having an outer diameter, said inner diameter and said outer diameter being sized such that there is a clearance fit between said bearing assembly and said bearing carrier to allow limited radial shifting of said bearing assembly with respect to said bearing carrier;

said front face of said aligning ring defining a plane that is normal to said central axis of said bearing carrier, said rotatable race having a spherical face and said aligning ring having a spherical face, said spherical face of said rotatable race engaging said spherical face of said aligning ring to allow limited angular displacement of the front face away from normal relative to said central axis of said bearing carrier;

said rotatable race including a groove extending radially about said rotatable race to retain a lubricant that reduces the friction between said rotatable race and said aligning ring.

REMARKS

Claims 1, 16-17, 39-40, and 42-44 are pending in the application. Claims 2-15, 18-38, 41, and 45-50 have been cancelled. Claims 1, 16, 17, and 39 have been amended. No new claims have been added to the application.

Rejections Under 35 USC § 102

The Examiner rejected Claims 1, 14 and 18 under 35 USC §102(b) as being anticipated by Lönne (U.S. Patent No. 3,948,371).

With reference to Claim 18, the Applicants respectfully bring to the Examiner's attention that the Applicants did not intend to include Claim 18 among the elected

claims. In the papers filed by The Applicants on December 23, 2002, the Applicants selected Claims 1, 14-17, and 39-44 for prosecution of this application. Accordingly, the Applicants have herein deleted Claim 18, and therefore respectfully request that the Examiner reconsider and withdraw this rejection with respect to Claim 18.

With regard to Claims 1 and 14, The Applicants have amended Claim 1 to include all of the limitations of dependant Claims 14 and 15, and have deleted Claims 14 and 15. The Applicants assert that the Lönne reference does not include each and every element of the invention as claimed in amended Claim 1, and therefore respectfully request that the Examiner reconsider and withdraw these rejections under §102(b).

Rejections Under 35 USC § 103 – Part One

The Examiner rejected Claims 15-17 under 35 USC §103(a) as being unpatentable over Lönne in view of Allen et al. (U.S. Patent No. 5,988,341).

The Applicants have amended Claim 1 to include all of the limitations of dependant Claims 14 and 15, as discussed above. The Applicants assert that the Lönne reference, in view of the Allen et al. reference, does not disclose each and every element of the claimed invention as described in amended Claim 1. Specifically, the Allen et al reference discloses "A seal member 52, which is most preferably an O-ring that is received within a groove 54 on the outer periphery 38. The seal member 52 maintains a fluid tight seal along the interface between the outer periphery 38 and the inner surface of the transmission case wall 24."

The present invention includes "a groove 288 within the concave spherical surface 282 for receiving an o-ring 290. The o-ring 290 helps to retain a lubricant that is placed between the aligning ring 284 and the support ring 279. Alternatively,

the present invention can be practiced without the presence of the o-ring 290, wherein the groove 288 will act as a reservoir for retaining a lubricant that will assist relative movement between the spherical surfaces 282, 286."

The presence of the o-ring 290 in the present invention is optional. The groove 288 as claimed in amended Claims 1 and 39 is adapted to be a lubricant reservoir that will hold a quantity of lubricant that will provide lubrication between the spherical surfaces 282, 286. The groove 54 and O-ring 52 of the Allen et al. reference is adapted to provide a fluid seal between two adjacent surfaces, not to provide a reservoir for lubricant, or to receive an o-ring that will help retain a lubricant, such as the groove 288 of the present invention. The groove 54 of the Allen et al. reference is useless without an o-ring 52 placed therein, whereas the o-ring 290 of the present invention is purely optional. The groove 54 and o-ring 52 of the Allen et al. reference is specifically adapted to provide a fluid seal between two adjacent surfaces. Without the o-ring 52, the Allen et al. reference would not function correctly.

Therefore, the Applicants assert that the Lönne reference in view of the Allen et al. reference does not disclose each and every element of amended Claim 1. Specifically, the Lönne reference in view of the Allen et al. reference does not disclose "a groove extending radially about said rotatable race to retain a lubricant that reduces the friction between said rotatable race and said aligning ring", as described in amended Claim 1. Therefore, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §103(a) with respect to amended Claim 1.

Rejections Under 35 USC § 103 – Part Two

The Examiner rejected Claims 39 and 40 under 35 USC §103(a) as being unpatentable over Lönne in view of Ernst et al. (U.S. Patent No. 3,985,215).

The Applicants have amended Claim 39 to include the limitations of dependant Claim 41, and assert that the Lönne reference in view of the Ernst et al. reference does not teach each and every element of the claimed invention as described in amended Claim 39. Specifically, the Lönne reference in view of the Ernst et al. reference does not teach “a groove extending radially about said rotatable race to retain a lubricant that reduces the friction between said rotatable race and said aligning ring.” Therefore, the Applicants assert that Claim 39 as amended is patentable over the Lönne reference in view of the Ernst et al. reference, and that Claim 40 is allowable as depending from amended Claim 39. Accordingly, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §103(a), with regards to Claims 39 and 40.

Rejections Under 35 USC § 103 – Part Three

The Examiner rejected Claims 41 and 42 under 35 USC §103(a) as being unpatentable over Lönne in view of Ernst et al. as applied to claims 39 and 40 and further in view of Allen et al. The Applicants have amended Claim 39 to include all of the limitations of Claim 41. In light of the arguments made above, the Applicants assert that the Lönne reference in view of the Ernst et al. reference, and further in view of the Allen et al. reference does not teach each and every element of the claimed invention as described in amended Claim 39.

Specifically, the Lönne reference in view of the Ernst et al. reference and further in view of the Allen et al. reference does not disclose “a groove extending radially about said rotatable race to retain a lubricant that reduces the friction between said rotatable race and said aligning ring”, as described in amended Claim 39. Therefore, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §103(a) with respect to amended Claim 39.

Rejections Under 35 USC § 103 – Part four

The Examiner rejected Claims 43 and 44 under 35 USC §103(a) as being unpatentable over Lönne in view of Ernst in further view of Allen as applied to claims 39-40 and further in view of Lassiaz (U.S. Patent No. 4,629,049).

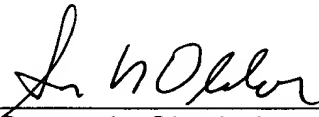
In light of the remarks made above, the Applicants assert that Claim 39 as amended is patentable, and therefore assert that Claims 43 and 44 are allowable and depending from amended Claim 39. Accordingly, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §103(a) with regard to Claims 43 and 44.

SUMMARY

The Applicants assert that pending Claims 1, 16, 17, 39-40, and 42-44 as amended are patentable. Applicant respectfully requests the Examiner grant early allowance of these claims. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,

Dated: 2-20-03

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APPENDIX A

1. (AMENDED) A clutch release bearing assembly adapted to engage a spring plate of a clutch assembly of a motor vehicle manual transmission to either push or pull the spring plate to release the clutch of the manual transmission, said clutch release assembly comprising:

a bearing carrier defining a central axis;

a bearing assembly supported on said bearing carrier, said bearing assembly including a stationary race, a rotatable race and a plurality of anti-friction elements disposed between said stationary race and said rotatable race adapted to support said rotatable race and to allow rotational movement of said rotatable race with respect to said stationary race; and

an aligning ring including a radial outer diameter and a front face mounted to said rotatable race, said aligning ring adapted for engagement with the spring plate of the clutch assembly;

said front face of said aligning ring defining a plane that is normal to the axis of said bearing carrier, said aligning ring [and said bearing being adapted] having a spherical face and said rotatable race having a spherical face, said spherical face of said rotatable race engaging said spherical face of said aligning ring to allow limited angular displacement of said front face away from normal relative to said central axis of said bearing carrier;

said rotatable race including an oil groove extending radially about said rotatable race to retain a lubricant that reduces friction between said rotatable race and said aligning ring.

16. (AMENDED) The clutch release bearing assembly of claim [14] 1 wherein said rotatable race includes a groove extending radially about said rotatable race adapted to receive an o-ring.

17. (AMENDED) The clutch release bearing assembly of claim [14] 1 including a plurality of anti-friction elements disposed between said rotatable race and said aligning ring.

39. (AMENDED) A clutch release bearing assembly adapted to engage a spring plate of a clutch assembly of a motor vehicle manual transmission to either push or pull the spring plate to release the clutch of the manual transmission, said clutch release assembly comprising:

- a bearing carrier with a central axis;

- a bearing assembly supported on said bearing carrier, said bearing assembly including a stationary race, a rotatable race and a plurality of anti-friction elements disposed between said stationary race and said rotatable race to support said rotatable race and to allow rotational movement of said rotatable race with respect to said stationary race;

- an aligning ring including a radial outer diameter and a front face mounted to said rotatable race, said aligning ring adapted for engagement with a spring plate of a clutch assembly;

said bearing assembly having an inner diameter and said bearing carrier having an outer diameter, said inner diameter and said outer diameter being sized such that there is a clearance fit between said bearing assembly and said bearing carrier to allow limited radial shifting of said bearing assembly with respect to said bearing carrier;

said front face of said aligning ring defining a plane that is normal to said central axis of said bearing carrier, said rotatable race having a spherical face and said aligning ring having a spherical face, said spherical face of said rotatable race engaging said spherical face of said aligning ring to allow limited angular displacement of the front face away from normal relative to said central axis of said bearing carrier;

said rotatable race including a groove extending radially about said rotatable race to retain a lubricant that reduces the friction between said rotatable race and said aligning ring.